



REPORTS
ON THE PROPERTY OF THE
Kent Gold Mining Company,
SITUATED ON THE
TROUT BROOK AND CHAUDIERE RIVER
IN THE
TOWNSHIP OF JERSEY,
CANADA EAST.

REPORTS

ЗА 1863 ГОДА

1863

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СБОРНИК ДЛЯ СОВЕЩАНИЯ ПОДЪЯЧИХ РИВЕР

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KENT GOLD MINING COMPANY.

PRELIMINARY STATEMENT.

No part of the far-famed Chaudière gold-mining region of Canada has shown better indications of a large yield of gold than the townships of Jersey and Marlow, situated in the county of Beauce, and between the main stream of the Chaudière and its most important tributary, the River du Loup.

The Kent Gold Mining Company, desirous of availing themselves of the rich prospects now opened up in this region, have selected a block of land, very favorably situated in the centre of the district referred to, or near the line between Jersey and Marlow. This property which is held by the Company in fee simple, is situated on Trout Brook, one of the tributaries of the Chaudière river, and comprises 434 acres in area, with a frontage of five miles on Trout Brook, and three-eighths of a mile upon the Chaudière.

It is confidently believed that this location is unsurpassed by any other in this auriferous region, and it is proposed to commence the work of prospecting, &c., immediately.

The subjoined reports and abstracts will convey an idea of the geological and mineral character of the region in question, and of the encouragement held out to mining adventurers.

EXTRACTS

FROM THE OFFICIAL REPORT OF SIR WILLIAM LOGAN,

PROVINCIAL GEOLOGIST,

ON THE

CHAUDIERE GOLD MINES.

In the Report of Progress preceding this, mention is made of a partial examination of the gold-bearing drift of the Chaudière. This examination was last season continued, and the facts resulting from it constitute the only additional topic to which I have to invite your Excellency's attention. The auriferous district was found to spread over an area probably comprising between 3000 and 4000 square miles. It appears to occupy nearly the whole of that part of the Province which lies on the south-east side of the prolongation of the Green Mountains into Canada, and extends to the boundary between the Colony and the United States. Two general lines of exploration were followed, one of them up the Chaudière and Rivière du Loup from the seigniory of St. Mary to the Province Line, and the other from Lake Etchemin to Sherbrooke on the St. Francis. The former, running transverse to the rock ranges, measured about forty-five miles, and the latter with them about ninety miles. The transverse line was more closely examined than the other, and traces of the precious metal were met with at moderate intervals throughout the whole distance. They were not confined to the channels of the main streams merely, but those of various tributaries furnished indications sometimes for a considerable distance up.

The lowest point in the valley of the Chaudière, at which the drift yielded traces of gold, was on a small

stream, falling in on the left side of the river, not far within the south-eastern boundary of the seigniory of St. Mary. They were found to occur on four tributaries, in the seigniory of St. Joseph, for distances of one and two miles from their mouths. One of these joins the main stream, on the left bank, about a quarter of a mile below the parish church, and the other three are on the right. The lowest of them is about two miles below the church, the next about the same distance above it, and the fourth is the Rivière des Plantes, about half a mile farther up, and near the south-eastern boundary of the seigniory. In Vaudreuil Beauce they were discovered on the Guillaume, much farther up than previously stated, and on the Bras opposite to it; on this and some of its tributaries the metal was traced to the centre of the township of Tring, a distance of about twelve miles. Three other streams which yield it in Vaudreuil Beauce, have heretofore been mentioned; they are the Ruisseau Lessard, Ruisseau du Moulin, and the Touffe des Pins, on which it was first discovered. In Aubert de l'Isle it was found on the Famine, and traced to Harbottle's settlement, and beyond the seigniory into Watford, a distance altogether of about ten miles. Some particles were obtained on the Ruisseau d'Ardoise, about a mile above the Famine, and it was followed about three miles up the brook commonly called Pozer's stream, in Aubert Gallion. On the Rivière du Loup, in addition to its occurrence in a multitude of spots, in fact almost continuously from its mouth across Jersey and Marlow, it was found in nearly all its tributary brooks, such as the Ladyfair, the Grande Coude, the Metgermet for four miles up, the Traveller's Rest, the Portage, Kempt's Stream, Oliver's Stream for four miles up, and another stream between it and the boundary of the Province. Above the Loup, on the Chaudière, it occurred at successive intervals in twenty places in sixteen miles, as far as the south-western boundary of Dorset township.

The localities of its observed presence on the other line of exploration were on Lake Etchemin and along the Famine in Aubert d'Isle, and Pozer's Stream in Aubert Gallion, towards Tring, and again on the St. Francis, in Dudswell, in Westbury,

and near the joint corners of Westbury, Stoke, Eaton, and Ascott, as well as in this last township near Sherbrooke.

It is not supposed that the limits of the auriferous district have been ascertained, but that it very probably extends much farther to the north-east, and attains the valley of the river St. John, while to the south-west it is known to reach Vermont, and to be traceable at intervals through the United States, even, it is said, as far as Mexico. In its breadth, however, it does not appear to cross the range of mountains with which it runs parallel, and no traces of it have been met with on their north-western flank. The deposit in which the gold occurs is part of an ancient drift, probably marine, and supposed to be of higher antiquity than that which, from the extent to which it occupies the valley of the St. Lawrence and some of its tributaries, Mr. Désor, who has recently bestowed much attention on the detrital deposits of North America, is disposed to give the name of Lawrencian. In this, alluded to in various Reports as tertiary and post-tertiary, the remains of whales, seals, and two species of fish, the capeling and the lump-sucker, and many marine shells of those species still inhabiting the Gulf of St. Lawrence, are found. These shells on the Mountain of Montreal attain a height of about 470 feet above the tide level in Lake St. Peter, which is the greatest altitude known to me; none of the remains have yet been found in the Canadian gold drift, and as this appears in its lowest undisturbed parts to be at a height of about 500 feet above the sea, it is probable what is now exposed of it, had emerged from the ocean before the Lawrencian drift was placed, while in lower levels it would be covered up by it.

In the localities in which the gold occurs, the coarser materials of the drift are made up in a large degree of the debris of rocks similar to the clay slates and interstratified grey sandstones on which it rests, but these are accompanied by fragments and pebbles of fine conglomerate, talcose slate, and serpentine, which with magnetic, specular, chromic and titaniferous iron (none of them absent when the gold is present) are derived from the mountain range, bounding it on the north-west;

pebbles and fragments of white quartz are abundant, which may be derived from the veins of the mineral prevailing in the mountain range or from others on the south-east of it. With these materials there occasionally occur in the valley of the Chaudière and its tributaries large boulders of limestone conglomerate, similar to the beds of the St. Giles and St. Mary, and more rarely boulders of gneiss identical in character with known kinds of the rock on the north side of the St. Lawrence. Not only is the gold absent from the drift on the north-west flank of the mountain range, but so also are the chromic iron and the serpentine, notwithstanding that the two have been traced in association 135 miles, constituting a marked band accompanying the range from Potton to Cranbourne. On the north-west flank, however, boulders of northern gneiss are frequent and a few of limestone have been met with even pretty high up on the hills, showing by their fossils their derivation from the Trenton limestone, the nearest exposures of which are on the north side of the St. Lawrence. In fact, in respect to the drift of the whole country, it may be said, that on southern formations are found resting the ruins of northern, but no northern rocks are met with overlaid, to any extent, by debris derivable exclusively from southern. The auriferous drift shows no exception to this, and there is little doubt that causes connected with northern currents, when the rocks were beneath the surface of an ocean, have placed the whole. Ever since the surface, however, has risen from beneath this ocean, causes similar to those now in operation in the district have been working in a contrary course. The rivers of the district emptying into the St. Lawrence, flow north; in so far, therefore, as their forces modify the distribution of the drift, the materials of which it is composed are carried in that direction. This, no doubt, has some effect on the finer and lighter materials, and occasionally, with the assistance of ice and great freshets, on some of the coarser and heavier; but the streams washing away the former in larger proportions than the latter, concentrate these in the valleys and channels. The gold being the heaviest substance is moved the least. It may occasion-

ally be pushed along the bottom when this is smooth, but it seeks every hole and crevice in its course, and when it has once obtained shelter there, it remains protected. Where the edges of the slates come to the surface, the plates have all been moved by superficial forces, and they, therefore, lie more or less loosely on one another, and the fine particles of gold gradually work themselves down between them, reaching sometimes so deep as three feet.

Although it is probable the whole of the drift on the south-east of the mountain range, both that in high and that in low places, may be auriferous, it appears certain that the metal will be most concentrated in the valleys and the channels of streams, and the larger the stream, the more frequently it has broken down its banks, the oftener and more extensively it has changed its course, the more important the auriferous deposit is likely to be.

From the combination of the materials associated with the gold in the drift, there appears a strong probability that the metal is derived, through the agency of some southward-moving causes, from quartz veins situated in the mountain range; and even if traces were found north of this range in the channels of the main streams, such as the Chaudière and the St. Francis, the circumstance would not militate against the supposition, as traces in such positions may be expected from the fluviatile remodification of the drift.

The object of this examination has not been so much to ascertain quantity as distribution, but an effective experiment being now in operation on the Rivière du Loup, under a letter of license from the Government, one condition of the lease being that a correct return shall be made of the quantity obtained, I am in hopes by the end of the present season to have a few such facts as will afford some criterion to determine whether there is reasonable ground for supposing the deposit in that vicinity can be worked advantageously.

GOLD IN LOWER CANADA.

(From the Commercial Advertiser.)

We have been favored by a friend, a practical gold-miner, who spent some years in the placers of California engaged in gold-mining, with an account of his exploration of the Chaudière gold district, during the present summer. Our informant spent two months in prospecting the country from the junction of the Du Loup and Chaudière rivers, where the Montreal Company is now working, to the Maine and New Brunswick boundary lines. The season has been one of the worst ever known for prospecting, the water in the rivers and brooks being at flood height, and the ground saturated with moisture by the constant rain. He was therefore prevented from examining the beds of the streams, and from sinking trial shafts to the necessary distance to obtain an accurate knowledge of the nature and extent of the distribution of the precious metal. But, in these unfavorable circumstances his general exploration was highly successful. He found gold in the banks of every stream examined, in the ditches by the road-side, in the gravel beds adjoining water-courses, on the tops of the hills far removed from water, and in other localities which cannot have been submerged for many ages. The general character of the gold, of which we have many specimens now before us, is of great purity and exceeding coarseness; some of it is much water-worn, and other specimens appear to have been only recently dislodged from the quartz matrix. The country generally exhibits broad exposures of slate, traversed by numerous quartz veins, and resembles in every respect the gold region of California, with the exception of the absence of volcanic evidences. We have now [to announce the discovery of a large quartz vein in the Chaudière district carrying an usually large amount of gold in prills and nuggets, many of them weighing several ounces; and the discovery of other leads showing similar indication of the precious metal, and proving conclusively that these quartz veins may be worked in Canada, as in Australia and California, with a prospect of very large returns. One mass of quartz taken from the large vein was thickly set with nuggets of gold from an ounce up to six ounces in weight, carrying the gold not in

regular strings, but in isolated lumps throughout its substance ; a quantity of quartz estimated at five hundred weight having yielded to the discoverer seven hundred dollars worth of gold by the simple process of breaking out the large pieces with a hammer ; and still containing a large amount of finer gold only to be obtained by crushing.

Our informant states that he saw nothing equal to this mass in the most productive quartz leads of California, and if the remainder of the vein from which it was taken is at all like it, its value is incalculable. It was discovered last year by some habitants of the district, who kept its locality a secret. It was from this vein that the large nuggets sold in Quebec last November were taken. We have before us some specimens, showing its exceeding richness.

The gold in the different streams varies much in character ; in some it is exceedingly fine, as fine indeed as that of Fraser's River ; in others, and some of the smallest, it is coarser than that found in California, the fine gold being apparently the result of the decomposition of auriferous pyrites, and the product of quartz veins.

Hitherto the streams alone have been worked, and the operations on them were conducted with so little skill, that our informant is surprised that any gold was obtained ; as it was, the whole of the fine gold was washed away.

Yet, in one instance, 15,000 dwts. were taken from little more than half-an-acre of a bar ; in another, nine pounds weight were got from a single hole, and more recently \$2,000 were obtained in two days, after damming a considerable stream, nearly all being coarse gold.

Our informant is of opinion, and as a thoroughly practical man his opinion is entitled to the highest consideration, that the dry diggings in the Chaudière district will be found more productive than the streams. He says that on the whole the California streams have not repaid the expense of working them. He believes that the streams contain no more gold than has been displaced by the water from the rocks traversing them ; and that the whole country in their vicinity would be found as rich, and in many cases much richer, if mined in the same manner as similar lands are in California and Australia, by sinking shafts through the gravel down to

the rock or clay beds beneath. He says that in no part of California could he obtain the same quantity of gold by the same means as he obtained upon the Chaudière and its tributary streams; that the surface prospects, in spite of the unfavorable season, were superior to any he had ever found before; and that with ordinary skill, by simply panning on the river banks, large wages can be made with certainty.

CHAUDIERE RIVER GOLD FIELDS.

(To the Editor of the Montreal Witness.)

SIR,—After a residence of many years in Australia, and having seen the Gold-workings on all the principal fields, and been in the continuous habit of testing alluvial gold, I find myself in Canada, and have had submitted to me the produce of about 5 tons of soil, taken from the neighborhood of Chaudière river—the amount is nearly 2oz. of *almost pure gold!* and, with the exception of Ballarat gold, as fine as any now found in either Australia or New Zealand. Having no interest in this country or in those fields, I submit this disinterested opinion:—that were any Australian miners to see such a result from so small a working, thousands of thoroughly experienced men would soon develop these hidden riches. I have no hesitation in saying that a country that can show such samples has untold riches yet to be produced. The gold of British Columbia is not to be compared with the Chaudière samples I have seen—containing nuggets as large as small beans.

Montreal, Sept. 16, 1863.

AN AUSTRALIAN.



Map
OF

THE GOLD BEARING
CHAUDIERE. C.

Comprised within Yellow Boundary. Com-

SCALE

SIX MILES TO C.



Map
OF
BEARING REGION OF THE
LAUDIERE, CANADA EAST.

Yellow Boundary. Company's Property Colored Red.

SCALE.

SIX MILES TO ONE INCH.





